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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,182	03/28/2002	Cord Friedrich Stahler	100564-00097	4565

6449 7590 03/31/2006

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EXAMINER	
HANDY; DWAYNE K	
ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,182	STAHLER ET AL.	
	Examiner	Art Unit	
	Dwayne Handy	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action replaces the action March of 2005. This Office action addresses claims 1-32.

Claim Rejections - 35 USC § 112

Claim Rejections - 35 USC § 101

Claims 1-24 and 28 provide for the use of a microfluidic reaction support, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-24 and 28 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 25-27 and 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Zanzucchi et al. (WO 96/15450).

Zanzucchi teaches a microfluidic device for processing and analyzing multiple samples in wells. The device is comprised of a disc (14) having a flow channel structure that includes a series of reaction areas (34, 36, 40, 42, 44) connected to feed channels (34, 50) and drain channel (46). The loading channel (50) feeds fluids in a vertical manner that is perpendicular to the flow channel structure. Loading channel (34) is a horizontal channel that flows parallel to flow channel structure. Figures 11A and 11B show other embodiments having vertical channels that provide feed and drain channels (315) that are perpendicular to the reaction areas. This embodiment also shows flow channel structures that are on both sides of the reaction support. The use of glass for the disc (14) is taught on page 8, lines 1-11. A cover sheet of glass is disclosed at page 11, line 18. Figures 7C and 8 show a valve system that uses gating electrodes (162) for controlling fluid flow in the reactors and reservoirs. The valve system is describedson page 16, lines 19-34. Zanzucchi teaches DNA binding and synthesis on page 11 and shows array synthesis on page 17. Zansucchi further teaches that fluorescence is detected. Figure 6A shows transmission through the bottom of each well to a detector above the reaction cells. Such would appear to show a backlight process where both top and bottom covers of the wells are transparent.

Claims 25-27 and 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfost (6,485,690).

Pfost teaches a multilayered fluidic array having microchannels, reservoirs and reaction wells. The device is best shown in Figures 1, 2 and 6-8. This embodiment is described at column 5, line 50 - column 6, line 46. The device is comprised of several layers (12, 14 and 16) having flow channels that run parallel (26) to the layers as well as flow channels that are perpendicular (20, 22, 32, 34) to the layers. Flow channel 20 is a feed channel, while channel 34 serves as a drain. The bottom layer of the device contains reaction wells (30). Pfost discloses materials of construction including glass and silicon in column 6, lines 33-40. DNA synthesis and receptor binding is taught in column 5, lines 1-48. Column 5, lines 37, et seq. indicate that the device has windows in the top and bottom and can allow fluorescent measurement.

Conclusion

Any inquiry concerning this communication should be directed to Jill A. Warden at telephone number (571) 272-1267.

Jill A. Warden
SPE
Art Unit 1743